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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
09/251,641	02/17/99	REDLINE	R	297-056

IM22/0323

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EXAMINER	
NICOLAS,W	
ART UNIT	**PAPER NUMBER**
1741	13

DATE MAILED: 03/23/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)	
	09/251,641	REDLINE ET AL.	
	Examiner	Art Unit	
	Wesley A. Nicolas	1741	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *9-16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 17-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a)☐ All b)☐ Some * c)☐ None of the CERTIFIED copies of the priority documents have been:

1.☐ received.

2.☐ received in Application No. (Series Code / Serial Number) _____ .

3.☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

14) ☒ Notice of References Cited (PTO-892)
15) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
16) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
17) ☒ Interview Summary (PTO-413) Paper No(s). 2 .
18) ☐ Notice of Informal Patent Application (PTO-152)
19) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

   I. Claims 1-8 and 17-20, drawn to process and solution, classified in class 205, subclass 85.

   II. Claims 9-16 and 17-20, drawn to process with after treatment and solution, classified in class 205, subclass 85.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different modes of operation. The method of claims 1-8 comprises contacting the metal surface with an immersion silver plating solution which comprises an additive. The method of claims 9-16 utilizes an after treatment of the silver plated surface.

3. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with John Cordani on March 1, 2000, a provisional election was made with traverse to prosecute the invention of Group I, claims 1-8 and 17-20. Affirmation of this election must be made by applicant in replying to this Office action. Claims 9-16 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification

6. The disclosure is objected to because of the following informalities: page 5, line 7, ".dc" should be changed to --DC--.

Appropriate correction is required.

Information Disclosure Statement

7. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other

information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1-8 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrier et al. (EP 0 797 380 A1), and further in view of Wakita (5,567,357).

Ferrier et al. teach a process and immersion plating solution which comprises a soluble source of silver ions and an acid (page 3, lines 1-8).

Wakita discloses a silver plated copper powder which comprises a fatty acid additive such as palmitic acid or stearic acid to improve dispersion (col. 2, lines 13-26).

Ferrier et al. fail to specifically teach of an additive which is selected from the group consisting of fatty amines, fatty amides, quaternary salts, amphoteric salts, resinous amines, resinous amides, fatty acids, resinous acids, ethoxylated versions of any of the foregoing, propoxylated versions of any of the foregoing and mixtures of any of the foregoing.

Claims 1, 5, 8, 17, and 20 are rejected because it would have been obvious and within ordinary skill in the art at the time the invention was made to have used the fatty acid additive of Wakita in the invention of Ferrier et al. because Wakita teaches that the addition of palmitic acid or stearic acid increases the dispersion of the silver plate which thereby increases the solderability of the substrate (col. 1, line 28 and col. 2, lines 13-26).

Claims 2, 6 and 18 are rejected because Ferrier et al. disclose that the plating solution further comprises an imidazole or imidazole derivative (page 3, line 15).

Claims 3, 7 and 19 are rejected because Ferrier et al. disclose that the silver plating solution also comprises an oxidant (page 3, lines 44-47).

Claim 4 is rejected because Ferrier et al. disclose that the metal surface comprises copper (page 3, line 54).

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 5,733,599 and 5,935,640 (Ferrier et al.) - The two Ferrier references are US equivalents to the cited EP 0 797 380 A1 reference.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesley Nicolas whose telephone number is (703)305-0082. The examiner can normally be reached on Mon.-Thurs. from 7am to 5pm.

The Supervisory Primary Examiner for this Art Unit is Kathryn Gorgos whose telephone number is (703) 308-3328.

The fax number for this Group is (703)305-7719.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703)308-0661.

Kathryn Gorgos
Supervisory Patent Examiner
Technology Center 1700

Wesley Nicolas

March 21, 2000